

Claims

1. A power supply having the following features:
 - a first and a second energy feed point (Vbus, M),
 - a transformer (TX1) having a primary (W1) and a secondary winding (W2), it being possible for the secondary winding to be connected to a load,
 - a first electronic switch (T1) which is connected in series with the primary winding (W1),
 - the series circuit of the first electronic switch (T1) and the primary winding (W1) is coupled to the first and the second energy feed point (Vbus, M),
 - a switching snubber device which is connected in parallel with the primary winding (W1) or in parallel with the first electronic switch (T1) and which contains the series circuit of a capacitor (C1) and a second electronic switch (D1, T2),
 - the series circuit of the capacitor (C1) and the second electronic switch (D1, T2) causes the energy, which is represented by the current in the primary winding (W1) when the first electronic switch (T1) is switched off, to be at least partially absorbed by the capacitor (C1),
 - the second electronic switch (D1, T2) causes a substantial part of the energy absorbed by the capacitor (C1) to be fed back into the transformer (TX1).
2. The power supply as claimed in claim 1, wherein a first resistor (R1) is connected in parallel with the capacitor (C1).

3. The power supply as claimed in claim 1 or 2,
wherein a second resistor (R2) is connected in
series with the second electronic switch (D1, T2).
- 5 4. The power supply as claimed in claim 1,
characterized in that
a diode (D1) forms the second electronic switch,
the diode (D1) having a reverse recovery time
which is longer than the time which elapses before
10 a substantial part of the energy absorbed by the
capacitor (C1) is fed back into the transformer
(TX1).
- 15 5. The power supply as claimed in claim 4,
wherein the diode (D1) has a reverse recovery time
of at least one microsecond.
- 20 6. The power supply as claimed in claim 1,
wherein a bipolar transistor (T2) forms the second
electronic switch, the bipolar transistor (T2)
having a storage time which is longer than the
time which elapses before a substantial part of
the energy absorbed by the capacitor (C1) is fed
back into the transformer (TX1).
- 25 7. The power supply as claimed in claim 6,
wherein the bipolar transistor (T2) has a storage
time of at least one microsecond.
- 30 8. The power supply as claimed in claim 6 or 7,
wherein a third resistor (R3) is connected in
parallel with a base/emitter path of the bipolar
transistor (T2).
- 35 9. The power supply as claimed in claim 1,
wherein light sources form the load.

10. The power supply as claimed in claim 1, wherein light-emitting diodes form the load.